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August 1986

Montana Science & Technology Alliance Report

Striving to promote a partnership between government, academia & business

MSTA Board Invests in Five Technology Projects

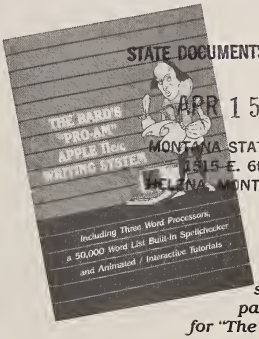
The Montana Science and Technology Alliance board of directors voted on Tuesday, July 8, 1986 to make technology investments in five projects — Writing Software International, a start-up company located in Missoula, three research projects at Montana State University, and one research project at the University of Montana.

Funds committed to the five projects total $231,141, bringing total investment commitments made to date by the Alliance to just under $1.3 million.

The board voted to invest $50,000 in Writing Software International of Missoula to assist in the development and sales of software products. The company specializes in writing productivity and personal desktop publishing products for the home, small business and school markets. Its current product, "The Bard," is a coauthoring software product that has been developed for the Apple II series computer. With the funds, the company plans to translate "The Bard" to other computer languages.

The board also voted to invest in three projects at Montana State University. The first is $81,713 for Dr. J. Denbigh Starkey to develop an applied research computer facility for use in solving natural resource and energy development problems. The board's funds will be matched with over $235,000 donated by various computer manufacturers to purchase other computer hardware components for the facility.

The second board investment at MSU is $33,428, matched with an equal amount of private funds, for Dr. Gerald A. Nielsen to develop a system for more efficient application of fertilizers and herbicides to farmland. The project involves the use of video mapping of farm fields to determine soil types and converting the data to digital computer maps of the fields. These maps would then be used by the computerized guidance systems of commercial applicators to apply the correct amounts of fertilizers and herbicides.



WSI's software packaging for "The BARD."

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The third board investment at MSU is $30,000 for Dr. V. Hugo Schmidt to develop a wind power generating system using piezoelectric polymers, new materials thought to be more efficient. The proposal calls for the investment to be matched with $30,000 by Ocean Power Technologies, Inc., a New Jersey firm specializing in the development of alternative energy generating systems.

The board also voted to invest $36,000 over three years for University of Montana professor Nellie Stark to study the feasibility of domestic cultivation of huckleberries at various elevations. If proven feasible, commercial cultivation could provide a stable crop source for the state's huckleberry-based food products industry.

R. Stephen Browning, chairman of the Alliance board, expressed pleasure that the projects the board chose to invest in involve both new and exciting technology areas for Montana and a high level of university system participation.

Writing Software International to Develop New Personal Publishing Software Program

In late 1985, Writing Software International was formed in Missoula to develop and market software products for the Apple computer market. The cofounders of the company, Spencer L. Manlove, President, and Richard P. Cummins, Vice President, have a wealth of experience in the computer field gained through employment with several national computer firms handling development, marketing and sales, as well as teaching in the computer science department and the developmental reading institute at the University of Montana.

WSI specializes in writing productivity products, called "coauthoring" programs. WSI began shipping their first product, "The BARD's 'Pro-Am' Writing System," in January of this year. This program consists of three word processors (to accommodate all levels of user experience), a built-in spell checker and an animated graphic tutorial. It is targeted at Apple IIe/c owners in homes, small businesses and schools.

With the Alliance funds, the company plans to translate their BARD system into computer language that will run on IBM and IBM-compatible personal computers and have the software on the market later this fall. WSI will also complete the development of a new release of a more powerful version of the BARD for Apple. This release is being developed in conjunction with Apple Computers for use on Apple's new II series computer scheduled to be introduced this fall.

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1424 Ninth Avenue
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(406) 444-3707

Montana State University to Develop Applied Research Laboratory for Computer Graphics and Image Analysis

Dr. J. Denbigh Starkey demonstrating computer graphics capability.

The Department of Computer Science at MSU, headed by Dr. J. Denbigh Starkey, is currently creating a modern applied research laboratory for computer graphics and image analysis. The facility will integrate over $100,000 of new equipment recently donated by Digital Equipment Corporation and Tektronix computer companies with the additional needed equipment to be purchased with the $81,713 Alliance investment. In addition, the Alliance investment will be matched with an equal amount of private funds, further increasing the facility's capabilities.

The state-of-the-art facility will include six major components: high resolution graphics display systems; high quality graphics output devices; an image acquisition and analysis system; high performance computers capable of executing millions of instructions per second for manipulating images pixel by pixel and with good tools for software development; adequate disk and tape storage for large images; and a high speed network linking the other components.

Educated in computer science and mathematics at the University of Pennsylvania and Oxford University in England, Dr. Starkey joined the faculty at MSU in 1984 after chairing the computer science department at Washington State University.

The research capabilities of high technology departments on MSU's campus will form an important contributing component to the success of the advanced technology park. Most high technology developments throughout the country have as an anchor a computer science component. The only other computer laboratory facility of this type in the Rocky Mountain region is in Utah. Once the facility is on line, the laboratory will become a recognized resource that can be accessed by professionals at the university and the Bozeman Technology Park as well as by other individuals and businesses throughout the state, thereby enhancing the university's reputation and increasing the park's chances for success.

ChromatoChem Opens for Business in Missoula

ChromatoChem, Inc., recipient of the Alliance's first technology investment this past spring, officially relocated from California to Missoula in July. ChromatoChem was the first technology investment made by the Alliance board this past February. Dr. Richard Hammen, the company's president and a Missoula native, expressed pleasure over finally completing the move. He is now looking forward to the rest of his family joining him by the end of August.

Progress continues to be made on product research and development as well as the formalizing of marketing relationships for ChromatoChem's high performance affinity chromatography products. ChromatoChem has hired three full time employees, including a biochemical engineer educated at Montana State University, a chemist educated at the University of Montana, and an office manager. The company has also established research contracts with the University of Montana. For additional financing, Dr. Hammen is applying for a phase two Small Business Innovation Research grant from the National Institutes of Health and venture capital financing.

October Board Meeting to be held in Bozeman

Montana State University has agreed to host the regular fall meeting of the Board of Directors scheduled for October 6 and 7, 1986. The on-campus meeting location will be announced later. The public is welcome to attend.

For details call 406/444-3707.

Montana Venture Capital Network Survey Underway

The Development Corporation of Montana, an earlier recipient of Alliance funding, has mailed over 200 survey questionnaires to Montanans targeted as potential members of a Montana venture capital network. If the questionnaire results indicate there is sufficient interest, DCM will set up the network and initiate a series of regularly scheduled meetings.

The Alliance would like to encourage anyone who has received such a questionnaire or is interested in receiving one to participate in the survey. Completed questionnaires or inquiries should be directed to:

Richard L. Bourke, President
Development Corporation of Montana
P.O. Box 916
Helena, Montana 59624

(406) 442-3850

Montana Science and Technology Alliance Staff

Mr. Hubbard

Samuel T. Hubbard has served as the executive director of the Alliance since its inception in 1985. He has seventeen years of service in the public sector at the state, regional and city level in Washington and Montana. Previous to his tenure at the Alliance, he held positions in Montana as the deputy director of both the Office of Budget and Program Planning and the Department of Commerce and as executive staff assistant to the director of the Department of Highways.

Mr. Hubbard graduated in 1968 from Whitman College with a bachelor of arts degree in history and in 1975 from the University of Washington with a masters degree in public administration.

Elinor W. Edmunds has served as the administrative officer of the Alliance since September of 1985. She has four years of experience in the private sector and eleven years of experience in the public sector in program administration at the state and city level in Ohio and Montana.

Ms. Edmunds graduated in 1971 from Michigan State University with a bachelor of arts degree in communications and has completed graduate work in environmental management and public administration at Cleveland State University.

Ms. Edmunds

Summary of MSTA Funding Requests

(as of August 11, 1986)

Inquiries	146
Executive Summaries	58
Summaries with University Participation	28
Formal Proposals	23
Alliance Funds Requested in Summaries	$ 6,802,736
Private Matching Funds	$ 13,368,530
Total Project Costs from Summaries	$ 20,171,266

Funding Requests by Program Category

Research and Development	20	$ 1,960,564
Seed Capital	29	$ 4,401,500
Technology Transfer	9	$ 440,672

Funding Requests by Geographic Region

Bozeman	19	Helena	4
Missoula	7	Great Falls	3
Butte	6	Out-of-State	4
Billings	5		
Anaconda, Broadview, Corvallis, Havre, Kalispell, Lewistown, Libby, Scobey, Sidney, Whitefish			1 each

MSTA Meetings

September 8, 1986
MSTA Committees

Department of Commerce
1424 Ninth Avenue
Helena, Montana

October 6 and 7, 1986
MSTA Board of Directors

Montana State University
Bozeman, Montana

Project Application Deadlines

Quarterly deadlines for formal application for funding are January 1, April 1, July 1, or October 1.
Next deadline is October 1, 1986.

If you want more information,

Contact MSTA at:
(406) 444-3707
1424 Ninth Avenue
Helena, Montana 59620

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Montana Science & Technology Alliance

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